

RECEIVED-DNR
MAR 10 2014

High Capacity, School or Wastewater Treatment Plant
Well Approval Application

Form 3300-256 (R 7/05)

RECEIVED-DNR
MAR 10 2014

Page 1 of 6

Notice: Prior department approval is required for the construction, reconstruction or operation of a high capacity well or system of high capacity wells, a school well or a wastewater treatment plant well in accordance with Section NR 812.09(4)(a), Wisconsin Administrative Code. Personally identifiable information collected on this form, including such data as your name, address and phone number, will be used for management of department programs and is unlikely to be used for other purposes. This information will be addressable under Wisconsin's Open Records Laws, ss. 19.32 - 19.39, Wis. Stats.

Use this form to request an approval for installation of a well or wells on a high capacity property, seek approval to make other changes to a high capacity property or to modify a well on a high capacity property, as required by NR 812.09(4)(a), Wisconsin Administrative Code. Refer to definitions of high capacity well, high capacity property and high capacity well system on page 5.

This form is not intended to be used when seeking approval for construction or modification of wells serving water systems regulated under ch. NR 811, Wis. Adm. Code. Any water system serving 7 or more homes, 10 or more mobile homes, 10 or more apartments, 10 or more condominiums, or 10 or more duplexes is regulated under ch. NR 811, Wis. Adm. Code. See NR 811.01, Wis. Adm. Code for applicability requirements.

Applicant Information

Application Prepared By (Name and Title) Dylan Mills		Company Roach + Associates, LLC	
Street Address 856 North Main St		City Seymour	State WI
Telephone Number 920-833-6340		Fax Number 920-833-9851	E-Mail Address Dylan@JmRoach.com

Property Ownership Information

Property owner, if different than applicant (Name of Person and Title) Kevin Krentz		Company Krentz Family Dairy, Inc	
Street Address W215 STATE Road 21		City Berlin	State WI
Telephone Number 920-570-0158		Fax Number	E-Mail Address

Well Operator Information

Well operator if different than owner (Name of Person and Title) Kevin Krentz		Company Krentz Family Dairy, Inc	
Street Address W215 STATE Road 21		City Berlin	State WI
Telephone Number 920-570-0158		Fax Number	E-Mail Address

Property Information

Enter the High Capacity Well File Number below if the property is already a high capacity property. If the property is not designated as a high capacity property at the time of application, enter "NONE." NOTE: Find the file number in upper right hand corner of the most recent high capacity well approval, or use the compact disk of departmental well data that is issued to drillers and pump installers. On the compact disk, see "File location" in red print in "Location" section. File number format is as follows: (1 or 2 digits for county) - (1 digit for well classification) - (1 to 4 digits for assigned property no.).

County Waushara	Town Aurora	High Capacity Well File No. None
--------------------	----------------	-------------------------------------

Submittal Purpose

Check all that apply:

- ☒ Install one or more new wells with a capacity greater than 70 gallons per minute.
- ☐ Install one or more new wells with a capacity less than 70 gallons per minute on a high capacity property.
- ☐ Replace one or more wells with a capacity greater than 70 gallons per minute.
- ☐ Replace one or more wells with a capacity less than 70 gallons per minute on a high capacity property.
- ☐ Reconstruct one or more wells with a capacity greater than 70 gallons per minute.
- ☐ Reconstruct one or more wells with a capacity less than 70 gallons per minute on a high capacity property.
- ☐ Increase pumping rate in one or more wells to a rate greater than previously approved.
- ☐ Request continued operation of high capacity wells after a change in ownership. (No application fee required.)
- ☐ Renew a previous approval that has expired.
- ☐ Well (or wells) will serve a school or wastewater treatment plant. See definitions on page 5.
- ☐ Other, explain _____

Site Status Information

Determine the site status using the internet or the compact disk of departmental well data that is issued to drillers and pump installers and the information supplied by the property owner. Internet address is dnr.wi.gov/org/water/dwg/dws.htm. Enter YES or NO for each of the following questions.

YES NO

☐ ☒ Has the property boundary changed since the most recent high capacity well approval was issued? If the property is not yet a high capacity property, check NO.

☐ ☒ Has there been a change in well ownership since the last approval was written?

If YES, name of current owner:

Date of purchase:

☐ ☒ Has there been a change in well operator since the last approval was written?

If YES, name of current operator:

Date of change:

☐ ☒ Will a proposed well be connected to a plumbing system that is supplied by other sources (other wells, municipal supply, etc.)? If YES, include a schematic drawing showing backflow protection.

☐ ☒ Is a proposed well within 1,200 feet of a landfill? Determine if there are any landfills nearby, using the well information compact disk FIND feature. Enter the township, range and section of the well location. If the well is near a section line, also check the adjacent section or sections.

If YES, list the landfill site ID Number:

OR Landfill location: (Township/Range/Section)

☐ ☒ Is a proposed well on a property that has a contaminated site? If YES, list the BRRTS (Bureau for Remediation and Redevelopment Tracking System) Number here and specify if the site is open or closed:

☐ Open☐ Closed

☐ ☒ Is a proposed well on a property that has a groundwater use restriction recorded on the deed? If YES, list the BRRTS number, as assigned to the contaminated site by the DNR remediation and redevelopment program:

☐ ☒ Is a proposed well on a property that is listed on the department's registry of closed remediation sites for a groundwater use restriction? See compact disk or internet at maps.dnr.state.wi.us/imf/dnrinf.jsp?site=brrts. If YES, list the BRRTS Number here:

☐ ☒ Is a proposed well to be used for a public water supply system that serves 25 or more people? See definition of a "public water system" in the definitions section on page 5.

☐ ☒ Is a proposed well to be installed within a special casing area? Refer to the list of special casing areas that is published by the department and/or contact the regional DNR office.

☐ ☒ Has the number of wells or pumping capacity in an existing well increased since the most recent high capacity well approval was issued?

☐ ☒ Has the number of wells decreased since the most recent high capacity well approval? If the property is not yet a high capacity property, check NO.

☐ ☒ Is a non-pressurized storage vessel (i.e. reservoir) other than a pond proposed or in use?

☐ ☒ Will the well discharge directly to a storage pond?

☐ ☒ Is a pressurized tank with a capacity greater than 1,000 gallons proposed or in use?

☐ ☒ Is a proposed well within 1,200 feet of a quarry?

☐ ☒ Is a proposed well located in a floodplain or floodway?

☐ ☒ Are any existing well installations on the high capacity property out of compliance with Chapter NR 812, Wisconsin Administrative Code?

☐ ☒ Will the well be used as a source of bottled water?

☐ ☒ Are you seeking a variance to construct a well that has a capacity of less than 70 gallons per minute to low capacity well construction standards?

☐ ☒ Is the property served by a community water system?

Proposed Well Information

Enter the following information on all proposed wells on the property, if more than two wells or alternate construction, submit additional sheets:

Well Name Assigned by Well Owner (North Well, etc.):		
Well Number Assigned by Owner (001, 002, etc.):	#3	
Well Loc: Quarter Quarter Section or French Long Lot Number	NW 1/4 of SE 1/4 of Section	1/4 of 1/4 of Section
or Government Lot Number	NONE	
Township & Range (Select E or W)	T 18 N, R 13 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	T N, R <input type="checkbox"/> E <input type="checkbox"/> W
Latitude (Degrees and Minutes)	44 ° 22.30	
Longitude (Degrees and Minutes)	-88 ° 53.755	
GPS Map Datum (WGS84, WTM91, etc.)		
Type of Well (Irrigation, Industrial, Residential, etc.):	Type: INDUSTRIAL - FARM <input checked="" type="checkbox"/> Potable Non-Potable	Type: <input type="checkbox"/> Potable Non-Potable
Drilling Method(s) (Rotary, Percussion, Etc.):		
Anticipated Geological Materials and Depths that Are Expected During Drilling:		
Material and Depth Interval:	Sandy CLAY from 0' to 35'	from 0' to '
Material and Depth Interval:	Sand & Gravel from 35' to 100'	from ' to '
Material and Depth Interval:	Sand Rock from 100' to 160'	from ' to '
Material and Depth Interval:		from ' to '
Material and Depth Interval:		from ' to '
Drillhole Diameter and Anticipated Depth Intervals:		
Diameter and Depth Interval:	12" from 0' to 100'	from ' to '
Diameter and Depth Interval:	8" from 100' to 160'	from ' to '
Diameter and Depth Interval:		from ' to '
Permanent Casing or Liner Diameter and Wall Thickness at Anticipated Depth Intervals:		
Diameter and Wall Thickness at Depth Interval:	12" diam / .375" thick 0' to 100'	" diam / " thick 0' to '
Diameter and Wall Thickness at Depth Interval:	" diam / " thick ' to '	" diam / " thick ' to '
Permanent Casing or Liner Material, If Used:		
Casing Joints (Welded, T and C, etc.)	T + C	
Material and Weight at Depth Interval:	Steel 12" 151 lbs/foot 0' to 100'	lbs/foot 0' to '
Material and Weight at Depth Interval:	Steel 8" 129 lbs/foot 100' to 160'	lbs/foot ' to '
Screen Material, Slot Size in Inches and Depth Interval or N/A if none:	N/A 1" ' to '	" ' to '
Casing to Screen Joint (Welded, T and C, K Packer, etc.)	N/A	
Annular Space Material Including Filter Pack Material, If Used:		
Material and Depth Interval:	Grout 1 0' to 100'	1 0' to '
Material and Depth Interval:	1 ' to '	1 ' to '
Proposed Average Water Usage Per Day in Gallons:		
Proposed Maximum Water Usage Per Day in Gallons:		
Seasonal? (April to October, Year Around, etc.):	Year Round	
Proposed Pump Type & Capacity (gpm):	Submersible	
Discharge Type (Over Top of Casing Seal, Pitless Adapter or Unit):	PITLESS Adapter	
Discharge Location (Building Pressure Tank, Pond, etc.):	PRESSURE TANK	
Distance and Direction to Nearest Public Utility Well & Well Name:	FOX RIVER ~ 3 miles South	
Distance to Other Potential Contaminant Sources:	300 ft	
Distance to Other Potential Contaminant Sources:		
Leave Blank, for Department use only		

Required Attachments

1. Attach one of the maps described in A. or B., below. Plot the existing and proposed well locations on the map. For wells that have a Wisconsin Unique Well Number or a Permanent High Capacity Well Number, plot the well locations with one of those numbers.
 - A. Copy of a plat map with the property boundary clearly shown. If the property is contiguous with properties owned by the same owner in another township, include a copy of that township map too, showing the property boundaries. If the property owner listed on the plat map is different from the current owner, list the date or dates, that the current property owner purchased the property on the map.
 - B. Map of the property prepared by a licensed land surveyor and the property description as described by the surveyor.
2. Sketch map showing all of the following that are planned or exist within 300 feet of each proposed well: proposed well location; other wells; property boundary; wetlands; potential contaminant sources (septic tank and drainfield, petroleum storage tanks, sewer lines, etc.); buildings and north arrow. If no pertinent features to map within 300 feet of the proposed well, for example an irrigation well in the middle of a field, state that on the property map listed above and plot the well locations on that map.
3. Any well construction records available for existing wells on the property. Do not attach any well construction records for wells that are not on the property. If a Wisconsin Unique Well Number has not been assigned, write a well name or site well number on the record that correlates to the well name or number plotted on the maps.
4. For proposed wells with a capacity greater than 400 gallons per minute, include the performance curve or performance table that is provided by the pump manufacturer. If the pump will be a fireshaft turbine, provide a curve with the same rpm as the motor under full load and list the motor horsepower.
5. If more than one well is connected to a common plumbing system, also provide a schematic drawing of the system showing method of preventing backflow. This sketch must include the well discharge (pitless, over top of casing sanitary seal); the water line from the well; pressure tanks; sampling faucets; check valves; backflow preventers; air gaps; manually operated valves; water meters; pressure switches for pumps; and any other pertinent fittings. This schematic drawing must also identify which of these components are buried or above ground. If there is more than one check valve within the well casing, include in-well check valves on the schematic.
6. If reconstruction of an existing well is proposed, include a diagram of the current well construction and a diagram of the proposed construction.
7. If the application is for a high capacity well or wells, a \$500.00 check payable to the Department of Natural Resources, unless the application is only for continued operation after a change of ownership.

Certification and Applicant Signatures

If the application requests a variance for a well within 1,200 feet of a landfill, a well on a property with a groundwater use restriction, or any other variance to NR 812, Wis. Adm. Code, the property owner must sign the application. If the well operator will install a well on property that he or she does not own, the property owner must also sign the application. Otherwise, an agent of the owner may sign the application.

Unsigned and incomplete applications will not be approved.

By signing this form, the person signing this application certifies that to the best of his or her knowledge, all existing well installations on the property comply with ch. NR 812, Wis. Adm. Code. The person also certifies that to the best of his or her knowledge, all information in the application is accurate and correct.

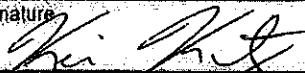
Name - Print

Kevin Krentz

Check Box

☒ Owner☐ Agent of the Owner

Signature



Company

Krentz Family Dairy Inc

Date

3-1-14

Application submittal. Mail completed application and payment with all required attachments to DNR, Private Water Systems Section - DG/2, PO Box 7921, Madison WI 53707-7921.

Definitions from Wisconsin Administrative Codes

"High capacity well" means a well constructed on a high capacity property. [NR 812.07(61)]

"High capacity property" means one property on which a high capacity well system exists or is to be constructed. [NR 812.07(62)]

"High capacity well system" means one or more wells, drillholes or mine shafts used or to be used to withdraw water for any purpose on one property, if the total pumping or flowing capacity of all wells, drillholes or mine shafts on one property is 70 or more gallons per minute based on the pump curve at the lowest system pressure setting, or based on the flow rate. [NR 812.07(63)]

"Public water system" means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. A public water system is either a community water system or a non-community water system. Such system includes: (a) Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (b) Any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. [NR 812.07(80)]

"School" means a public or private educational facility in which a program of educational instruction is provided to children in any grade or grades from kindergarten through the 12th grade. Water systems serving athletic fields, school forests, environmental centers, home-based schools, day-care centers and Sunday schools are not school water systems. [NR 812.07(94)]

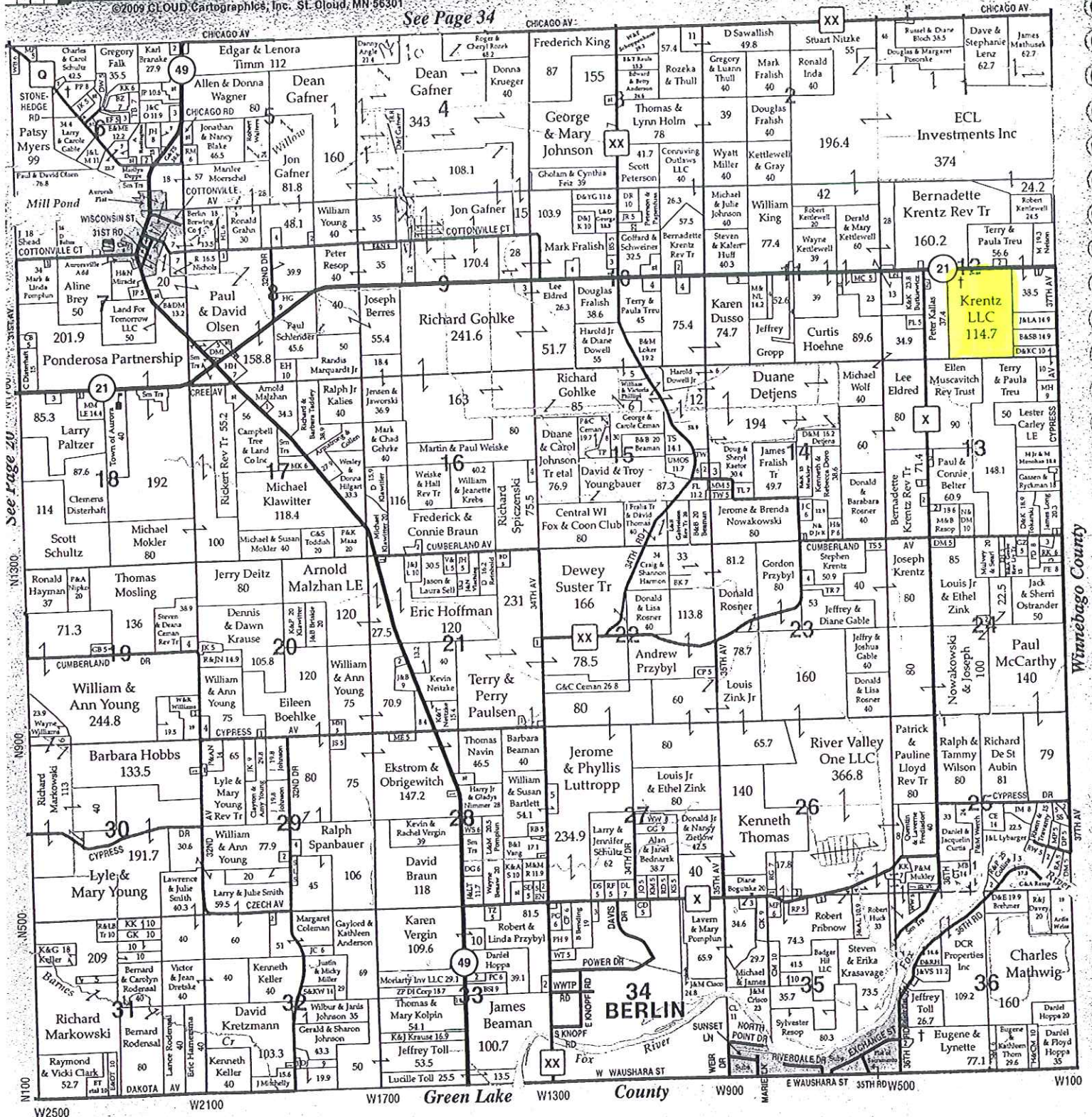
"Wastewater treatment plant" means any facility provided for the treatment of sanitary or industrial wastewater or both. The following types of facilities are excluded: (a) Facilities defined as private sewage systems in s. 145.01(12), Stats. (b) Pretreatment facilities from which effluent is directed to a public sewer system for treatment. (c) Industrial wastewater treatment facilities which consist solely of a land disposal system. [NR 114.03(14)]

Aurora

T.18N. - R.13E.

©2009 CLOUD Cartographics, Inc. St. Cloud, MN 56301

See Page 34



OLSEN'S MILL, INC.

Grain ♦ Feed ♦ Seed ♦ Fertilizer

Aurora - 920.361.2750 Crop Center - 800.720.2767
 Stevens Point - 800.308.7264 Oshkosh Rail - 800.491.2676
 Westfield - 800.367.4057

WISCONSIN UNIQUE WELL NUMBER
Source: WELL CONSTRUCTION

NL547

State of Wi-Private Water Systems-DG/2 Form 3300-77A
 Department Of Natural Resources, Box 7921 (Rev 02/02)bw
 Madison, WI 53707

Property Owner **KRENTZ, GORDON** Telephone Number **920-361-1749**

Mailing Address **W215 HWY 21**

City **BERLIN** State **WI** Zip Code **54923**

County of Well Location **NE** Co Well Permit No **W** Well Completion Date **August 18, 1999**

1. Well Location **FRONT** Depth **160** FT

T=Town C=City V=Village
T of AURORA Fire# **W215**

Street Address or Road Name and Number
HWY 21

Subdivision Name Lot# Block#

Well Constructor **CENTRAL WELL DRILLING LLC** License # **4231** Facility ID (Public)

Address **PO BOX 405 400 S WOODWARD ST** Public Well Plan Approval#

City **BRANDON** State **WI** Zip Code **53919** Date Of Approval

Hicap Permanent Well # Common Well # Specific Capacity **.6** gpm/ft

Gov't Lot or **NW** 1/4 of **SE** 1/4 of

Section **12** T **18** N R **13** E

2. Well Type **1** (See item 12 below)

1=New 2=Replacement 3=Reconstruction

of previous unique well # _____ constructed in _____

Reason for replaced or reconstructed Well?
DAIRY

3. Well Serves # of homes and or **DAIRY**
P (eg: barn, restaurant, church, school, industry, etc.)

High Capacity: Well? **N** Property? **N**

M=Munic O=OTM N=NonCom P=Private Z=Other X=NonPot A=Anode L=Loop H=Drillhole

1 1=Drilled 2=Driven Point 3=Jetted 4=Other

4. Is the well located upslope or sideslope and not downslope from any contamination sources, including those on neighboring properties? **Y**

Well located in floodplain? **N**

Distance in feet from well to nearest: (including proposed)

1. Landfill	9. Downspout/ Yard Hydrant	17. Wastewater Sump
2. Building Overhang	10. Privy	18. Paved Animal Barn Pen
3. 1=Septic 2= Holding Tank	11. Foundation Drain to Clearwater	19. Animal Yard or Shelter
4. Sewage Absorption Unit	12. Foundation Drain to Sewer	20. Silo
5. Nonconforming Pit	13. Building Drain	21. Barn Gutter
6. Buried Home Heating Oil Tank	14. Building Sewer 1=Gravity 2=Pressure	22. Manure Pipe 1=Gravity 2=Pressure
7. Buried Petroleum Tank	15. Collector Sewer: ___ units ___ in. diam.	23. Other manure Storage
8. 1=Shoreline 2= Swimming Pool	16. Clearwater Sump	24. Ditch
		25. Other NR 812 Waste Source

5. Drillhole Dimensions and Construction Method

From	To	Upper Enlarged Drillhole	Lower Open Bedrock
Dia.(in.)	(ft)	(ft)	(ft)
6.0	surface	160	

Construction Method

-- 1. Rotary - Mud Circulation -----

-- 2. Rotary - Air -----

-- 3. Rotary - Air and Foam -----

-- 4. Drill-Through Casing Hammer

-- 5. Reverse Rotary

-- 6. Cable-tool Bit ___ n. dia -----

-- 7. Temp. Outer Casing ___ in. dia. ___ depth ft. Removed?

Other

8. Geology

Geology Codes	Type, Caving/Noncaving, Color, Hardness, etc	From (ft.)	To (ft.)
CS	SANDY CLAY	0	35
YG	SAND & GRAVEL & BOULDERS	35	99
N	SANDROCK	99	160

6. Casing Liner Screen Material, Weight, Specification From To

Dia. (in.)	Manufacturer & Method of Assembly	(ft.)	(ft.)
6.0	NEW BLACK STEEL 18.97# PER FT 1780 PSI ASTM A-53 GR B P.E. U.S.A. IPSCO	surface	99

Screen type, material & slot size From To

9. Static Water Level 32.0 feet B ground surface A=Above B=Below

10. Pump Test Pumping level 80.0 ft. below surface Pumping at 30.0 GP M 1.0 Hrs

11. Well Is: 24 in. A Grade A=Above B=Below

Developed? Y Disinfected? Y Capped? Y

7. Grout or Other Sealing Material

Method	From (ft.)	To (ft.)	# Sacks Cement
GRANULAR BENTONITE AS CASING I	surface		4 S

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property? If no, explain **N/A**

13. Initials of Well Constructor or Supervisory Driller **TRO** Date Signed **8/18/99**

Initials of Drill Rig Operator (Mandatory unless same as above) Date Signed

Additional Comments? Variance Issued?
 Owner Sent Label? Y More Geology?

Batch 615

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER

HW 803

Property Owner Gordon Krentz

Telephone Number (414) 361-1934

Mailing Address W374 Hwy. 21

City Berlin

State WI

Zip Code 54923

County of Well Location Waushara

Co. Well Permit No. W

Well Completion Date (mm-dd-yy) 07-22-94

Well Constructor (Business Name) Wagner Bros. Well Drilling

License # 654

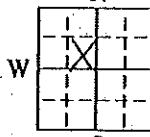
Address W2202 State Hwy. 149

City Mt. Calvary

State WI

Zip Code 53057

2. Mark well location with a dot in correct 40-acre parcel of section. N



State of Wisconsin
Private Water Supply - WS/2
Department of Natural Resources
Box 7921

Madison, WI 53707 (Please type or print using a black pen.)

OCT 31 1994

1. Well Location Please use decimals instead of fractions.

☒ Town ☐ City ☐ Village Fire # (If avail.)

of Aurora W 374

Grid or Street Address or Road Name and Number (If avail.)

W 374 Hwy 21

Subdivision Name Lot # Block #

Gov't Lot # or SE 1/4 of NW 1/4 of

Section 12, T 18 N; R 13 ☒ E ☐ W

3. Well Type ☐ New

☒ Replacement ☐ Reconstruction

of previous unique well # ? constructed in 19 ?

Reason for new, replaced or reconstructed well?

pumping sand / no volume

☒ Drilled ☐ Driven Point ☐ Jetted ☐ Other

4. Well serves 2 # of homes and or barn
(Ex: barn, restaurant, church, school, industry, etc.)

High Capacity:

Well? ☐ Yes ☒ No

Property? ☐ Yes ☒ No

5. Well located on highest point of property, consistent with the general layout and surroundings? ☒ Yes ☐ No If no, explain on back side.

Well located in floodplain? ☐ Yes ☒ No

Distance in Feet From Well To Nearest:

1. Landfill 35
2. Building Overhang 65
3. Septic or Holding Tank (circle one) 85
4. Sewage Absorption Unit
5. Nonconforming Pit 50
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline/Swimming Pool

9. Downspout/Yard Hydrant

10. Privy

11. Foundation Drain to Clearwater

12. Foundation Drain to Sewer

13. Building Drain

☐ Cast Iron or Plastic ☐ Other

14. Building Sewer ☒ Gravity ☐ Pressure

☒ Cast Iron or Plastic ☐ Other

15. Collector or Street Sewer

16. Clearwater Sump

17. Wastewater Sump

18. Paved Animal Barn Pen

19. Animal Yard or Shelter

20. Silo - Type Harvester

21. Barn Gutter

22. Manure Pipe ☐ Gravity ☐ Pressure

☐ Cast Iron or Plastic ☐ Other

23. Other Manure Storage

Other NR 112 Waste Source

24.

6. Drillhole Dimensions
Dia. (in.) From (ft.) To (ft.)

8	surface	10
6	10	163

Method of constructing upper enlarged drillhole only.

- ☐ 1. Rotary - Mud Circulation
- ☒ 2. Rotary - Air
- ☐ 3. Rotary - Foam
- ☐ 4. Reverse Rotary
- ☐ 5. Cable-tool Bit in. dia.
- ☐ 6. Temp. Outer Casing in. dia.
- Removed? ☐ Yes ☐ No
- If no, explain
- ☐ 7. Other

DNR USE ONLY

9. Geology
Type, Caving/Noncaving, Color, Hardness, Etc.

From (ft.) To (ft.)

RCS	sandy red clay	Surface	28
RC	red sand	28	45
SG	sand and stones	45	70
P	hardpan	70	95
S	sand	95	120
Y	gravel and sand	120	130
N	sandstone	130	163

7. Casing, Liner, Screen
Material, Weight, Specification
Dia. (in.) Manufacturer & Method of Assembly

Dia. (in.)	From (ft.)	To (ft.)
6	surface	130

8. Grout or Other Sealing Material

Method	From (ft.)	To (ft.)	# Sacks Cement
screened			
Kind of Sealing Material			
Bentonite Cumbles	surface	130	1

10. Static Water Level
ft. above ground surface
35 ft. below ground surface

12. Well Is:
☒ Above Grade
☐ Below Grade

11. Pump Test
Pumping Level 67 ft. below surface
Pumping at 15 GPM for 2 hours

Developed? ☒ Yes ☐ No
Disinfected? ☒ Yes ☐ No
Capped? ☒ Yes ☐ No

13. Did you permanently seal all unused, noncomplying, or unsafe wells?

☐ Yes ☒ No If no, explain owner well

14. Signature of Point Driver or Licensed Supervisory Driller Date Signed

Signature of Drill Rig Operator (Mandatory unless same as above) Date Signed

Make additional comments on reverse side about geology, additional screens, water quality, etc.

Comments on reverse side (Check ☒, if yes)

DNR

WELL CONSTRUCTION REPORT 309
Form 3300-77A Rev. 7-93